

Notice of Allowability

Application No.

10/623,504

Examiner

David A Reifsnyder

Applicant(s)

CALEFFI, IDEO

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on July 22, 2003.
2. ☒ The allowed claim(s) is/are 1-7 (renumbered as claims 1, 2, 5-7, 3 and 4, respectively).
3. ☒ The drawings filed on 22 July 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 7/23/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

In The Specification

Paragraph [0006] which starts on page 2, line 25 and ends on page 3, line 2 has been replaced with the following amended paragraph:

In European patent application number EP 99830011.5, which published as EP 0 933 066 A2 and is by the same applicant, ~~prior art also~~ teaches another solution, which has a special conformation and arrangement of the fluid inlet and outlet holes in the separator. This separator, constructionally very simple, increases the efficiency of the separation, but cannot operate with at very slow flow rates.

REASONS FOR ALLOWANCE

The main reason for the allowance of claims 1-7 is the instantly claimed cyclone separator suitable for variable fluid flow rates, for separating solid particles dispersed in a fluid, comprising a closed recipient superiorly closed by a lid provided

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with an inlet for the fluid including the solid particles and an outlet for the fluid purified of the solid particles, the recipient having a truncoconical wall converging in a downwards direction, at a narrow end of which there is a discharge which can be connected to a container in which the solid particles are collected, and above which an outlet conduit is located for outletting the fluid from the recipient; **wherein it also comprises: a recycling conduit for placing the outlet conduit in communication with the inlet of the fluid; a three-way valve connected at an inlet thereof to the outlet conduit and connected at outlets thereof to the recycling conduit and to the outlet, which three-way valve is provided with an obturator commanded by a pressure exerted by the fluid exiting from the outlet conduit, which obturator blocks a connection between the outlet conduit and the recycling conduit when the pressure reaches a first predetermined value; a one-way valve having an obturator and being located on the outlet downstream of the three-way valve, which one-way valve is normally closed and is commanded by pressure exerted by the fluid outletting from the outlet conduit, which one-way valve connects the outlet conduit with the outlet when the pressure exerted by the fluid reaches a second predetermined value which second predetermined value is above the first predetermined value.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

EP 0 557 251 B1 and its US equivalent Cattani (5, 330, 641) who discloses a hydrocyclone for separating solid particles (e.g. solid particles from dental apparatus) suspended in a fluid (i.e. discharge fluids from dental apparatus).

EP 0 933 066 A2 and its US equivalent Cattani (6, 090, 286) who discloses a hydrocyclone for separating solid particles (e.g. solid particles from dental aspirating equipment) suspended in a fluid (i.e. discharge fluids from dental aspirating equipment).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A Reifsnyder whose telephone number is (571) 271-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR